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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/763,092	02/16/2001	Iwao Miyajima	AKI-C052	2721

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EXAMINER

DEPUMPO, DANIEL G

ART UNIT	PAPER NUMBER
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3611

DATE MAILED: 08/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/763,092

**Applicant(s)**

MIYAJIMA, IWA0

**Examiner**

Daniel G. DePumpo

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10 June 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 14-17, 28 and 29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 14-17, 28 and 29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

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1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claim 29 is finally rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The originally filed specification does not support the new recitations that the urethane foam has a density in various ranges from  $0.010\text{g/cm}^3$  to  $0.500\text{g/cm}^3$ . The original specification does not provide any units for the density ranges as disclosed at pages 4 and 5. Consequently appellant may not now urge that these density ranges are the patentable feature of the invention (as argued in the amendment filed August 13, 2002).

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 14, 15 and 28 are finally rejected under 35 U.S.C. 103(a) as being unpatentable over Yamagiwa '677 in view of the Japan 106,390 reference (JP '390) and further in view of Kennedy.

Yamagiwa discloses a two-wheeled motor vehicle wherein a hollow portion of the frame is filled with an acoustic material or a damping material (col. 6, line 26) such as polyurethane

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foam (col. 6, line 53). The foam may be introduced at a threaded opening (col. 6, lines 32 and 63). The foam is foamed after it is poured into the frame.

Yamagiwa does not specifically disclose that the foam is introduced into the swing arm section of the vehicle frame. However, JP '390 teaches a swing arm which is filled with a vibration suppressing material such as gum, sponge or the like (abstract translation). It would have been obvious to modify Yamagiwa by including the foam in the swing arm section of the frame since both Yamagiwa and JP '390 teach the desirability of adding a damping or vibration suppressing material in a hollow section of a motorcycle frame, and JP '390 specifically teaches the inclusion of such a material in a swing arm to suppress vibrations.

Regarding the recitation of "gum-based particles" (claim 28), it is noted that the term "gum" as translated is considered to be a very broad term and is considered to cover a wide category of materials. Yamagiwa discloses the use of foams including various additives, while JP'390 specifically discloses the use of "vibration suppressing material, such as gum, sponge or the like" (Abstract translation, emphasis added). At page 9 of the translation of the JP '390 reference it is disclosed that "various materials can be used as long as they have a vibration suppression effect (including a sound absorption effect), and the material can be selected from a wide range, such as rubber-shaped elastic body, viscoelastic body, sponge, or plastic foaming body" (emphasis added). Nevertheless, Yamagiwa and JP '390 do not specifically disclose the use of gum in the urethane foam. Kennedy, however, discloses that the chemistry of polyurethane foam production is well known (col. 1, lines 25-27), and further discloses that gum is useful in the formation of urethane foams (col. 1, lines 38 and 56). It would have been

obvious to modify the combination by including gum in the foam, as taught by Kennedy, since this is useful in the preparation of polyurethane foams (col. 1, lines 61).

Yamagiwa discloses that the foam may be introduced at a threaded opening (col. 6, lines 32 and 63), but does not specifically disclose that the threaded opening is the opening by which the swing arm is mounted to the vehicle (claim 14). However, since Yamagiwa discloses the introduction of the foam through a threaded opening, to select the mounting opening would have been an obvious design expedient. Yamagiwa also discloses that the use of random holes to fill the frame (col. 20, lines 55-60) is convenient. Thus, it would have been an obvious design expedient to introduce the foam through an opening at the end of the arm portion (claim 15). Moreover, it is noted that JP '390 inserts the damping material through an opening at the end of the arm portion as shown in fig. 1.

5. Claim 29 is finally rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Yamagiwa '677, JP '390 and Kennedy as applied to claims 14, 15 and 28 above, and further in view of Lindewall.

Regarding the claimed density ranges, these broad ranges appear to be inherent in expanded foam of the type disclosed by Yamagiwa. In the supplemental response filed August 13, 2002, applicant provides abstracts of numerous Japanese Kokai Publications, and states that they are "representative of countless technical publications". These publications seem to establish that urethane foams generally have a density within the broad claimed ranges. Nevertheless, neither Yamagiwa nor JP '390 specifically discloses the claimed density.

Lindewall, however, discloses a structural urethane foam having a density that falls within the claimed ranges (col. 3, lines 23 and 24). It would have been obvious to modify the

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combination by using a foam having the claimed density, as taught by Lindewall since commercially available structural foams commonly have such a density.

6. Claims 16 and 17 are finally rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Yamagiwa '677, JP '390 and Kennedy as applied to claims 14, 15 and 28 above, and further in view of the Japan 205119 reference (JP '119).

As set forth above, the combination teaches substantially all that is claimed, but does not teach the use of a mesh sheet (claim 16). JP '119, however, discloses a filling method of a foaming body including the use of a "net type bag body 16" (abstract translation) to retain the "styrene acrylonitrile" (abstract translation) foam as shown in fig. 1. It would have been obvious to use a mesh sheet, or "net type body bag" as taught by JP '119, to retain the material before it is foamed.

7. Applicant's arguments filed 6/10/04 have been fully considered but they are not persuasive.

Regarding the 35 U.S.C. 112, first paragraph rejection, applicant urges that the disclosure inherently teaches the units of  $\text{g/cm}^3$ . The specification, however, does not list any units for the density of the claimed material. 35 U.S.C. 112, first paragraph requires that the specification reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The examiner notes that the density of a material may be defined using various units from various measurement systems. For example, as evidenced at pages 5 and 6 of appellant's brief, density may be defined by units such as  $\text{g/cm}^3$ ,  $\text{g/dm}^3$  or pounds per cubic feet. It is unclear whether appellant considers the claimed density to be inherent in the claimed material, or whether appellant considers the density to be a

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patentable feature. The examiner considers that all claimed subject matter must be adequately supported by the original specification.

Regarding Kennedy, this reference has been applied for the specific teaching that gum is useful in the formation of urethane foams. The rest of the claimed subject matter is taught by the other applied references.

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel G. DePumpo whose telephone number is 703 308-1113. The examiner can normally be reached on Monday - Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lesley Morris can be reached on 703 308 1113. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Daniel G. DePumpo  
Primary Examiner  
Art Unit 3611

dgd  
8/12/04